

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
26 February 2004 (26.02.2004)

PCT

(10) International Publication Number
WO 2004/016670 A2

(51) International Patent Classification⁷:

C08G

(21) International Application Number:

PCT/US2003/025661

(22) International Filing Date: 15 August 2003 (15.08.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/404,351 16 August 2002 (16.08.2002) US

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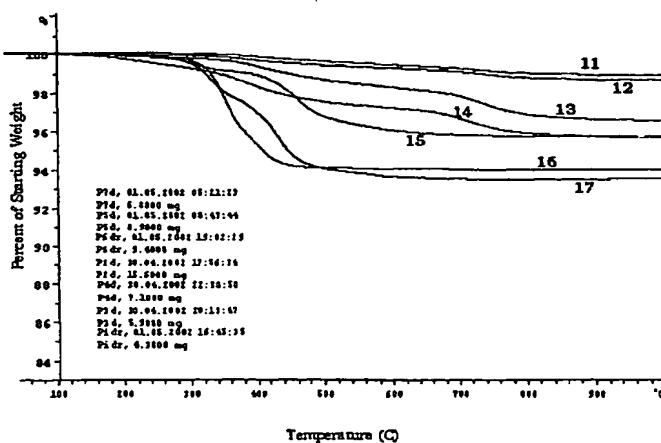
(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: POLY(CYCLOSILOXANE) COMPOSITION AND METHOD OF SYNTHESIS THEREOF



(57) Abstract: A poly(cyclosiloxane) network comprises the hydrosilation reaction product of a cyclosiloxane of the formula (I) wherein R and R² are the same or different for each siloxane moiety and are selected from the group consisting of hydrogen, an alkyl group, an aryl group, and a cycloalkyl group, and wherein n is an integer from 3 to 8, wherein the cyclosiloxanes are joined by moieties selected from the group consisting of oxygen atoms, linear silanols, branched silanols, halosilanes, alkoxy silanes, vinyl silanes, allyl silanes, vinyl siloxanes, and allyl siloxanes, wherein the Si-O bonds of the cyclosiloxanes are substantially unarranged compared to the cyclosiloxane precursors of the network. A process for the preparation of a poly(cyclosiloxane) network comprises providing a cyclosiloxane; providing a crosslinking group selected from the group consisting of linear silanols, branched silanols, halosilanes, alkoxy silanes, vinyl silanes, allyl silanes, vinyl siloxanes, and allyl siloxanes; contacting the cyclosiloxane and crosslinking group under condensation reaction conditions such that the crosslinking groups provide Si-O-Si linkages between the cyclosiloxane moieties to form a poly(cyclosiloxane) network composition.

